



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/788,555

02/27/2004

Peter G. Knopp

9065.ALG.P

7054

69814

7590

05/01/2008

BROOKS, CAMERON & HUEBSCH, PLLC
1221 NICOLLET AVENUE, SUITE 500
MINNEAPOLIS, MN 55403

EXAMINER

BASHAW, HEIDI M

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

05/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/788,555	Applicant(s) KNOPP, PETER G.	
	Examiner HEIDI M. BASHAW	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-12,14,16-21 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) 7,13,15,22-24 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-12,14,16-21 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 114. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 6 is objected to because of the following informalities: In line 2 of the claim "the successive position" is believed to be in error for -- the successive arrangements --. Appropriate correction is required.
3. Claim 14 is objected to because of the following informalities: In line 2 of the claim "tooth is s group" is believed to be in error for -- tooth is a group --. Appropriate correction is required.

4. Claim 17 is objected to because of the following informalities: In line 1 of the claim "The system of claim 6" is believed to be in error for --the system of claim 16--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-6, 8-12 and 16-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In each of the independent claims the applicant claims "at least one first tooth" and "at least one second tooth." However, in each of the dependent claims the applicant claims "the first tooth" and "the second tooth," the claim language must be consistent throughout the claims.

7. Claims 3 and 18 recites the limitation "the duration" in line 1 of each of the claims. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 21 recites the limitation "the teeth" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3732

10. Claims 1-6, 8-12, 14, 16-21 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chishti et al. 5,975,893 (Chishti).

11. Re claim 1, Chishti teaches a method for moving teeth comprising moving at least one first tooth and moving at least one second tooth while isolating the first tooth at a rest position, isolating the first tooth by relieving the first tooth of any applied force (col. 8, ll. 50-67). Chishti further teaches maintaining a space between the appliance and particular regions of the teeth (col. 12, ll. 35-44) inherently relieving the force applied to the first tooth. Chishti teaches "a preferred appliance will comprise a polymeric shell having cavity shaped to receive and resiliently reposition teeth from one tooth arrangement. The polymeric shell will preferably, but not necessarily, fit over all teeth present in the upper or lower jaw. Often, only certain one(s) of the teeth will be repositioned while others of the teeth will provide a base or anchor region for holding the repositioning appliance in place as it applies the resilient repositioning force against the tooth or teeth to be repositioned" (col. 8, ll. 54-63). This reads on the claim because the tooth that's not being repositioned is the tooth that is being isolated by not applying the repositioning force.

12. Re claim 2, Chishti teaches a method wherein the second tooth is moved for a first duration and immobilized for a second duration (col. 8, ll. 50-67).

13. Re claims 3 and 8-12, Chishti does not specifically teach the method wherein the duration is on an hourly basis, a daily basis or a weekly basis, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate any duration of time between moving teeth whether it is weekly, monthly,

daily, etc. in order to provide a variation of implemented treatment schedules as suitable to each individual patient.

14. Re claim 4, Chishti teaches the method comprising generating a plurality of appliances base on the moving of the first tooth and the second tooth, wherein the appliances comprise polymeric shells having cavities and wherein the cavities of successive shells have different geometries shaped to receive and resiliently reposition the first and second teeth from one arrangement to a successive arrangement (col. 4, ll. 7-19, col. 8, ll. 50-67).

15. Re claim 5, Chishti teaches the method wherein a first cavity isolated the first tooth at the rest position (col. 8, ll. 59-60).

16. Re claim 6, Chishti teaches the method wherein a second cavity urges the second tooth to one of the successive positions (col. 8, ll. 54-57).

17. Re claim 14, Chishti does not specifically teach the method wherein the at least one first tooth is a group of contiguous teeth, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate any combination or teeth in order to provide a variation of treatment as suitable to each individual patient.

18. Re claim 16, Chishti teaches a system comprising means for moving at least one first tooth and means for isolating the first tooth at a rest position by relieving the force applied to it, while moving at least one second tooth (col. 8, ll. 50-67). Chishti further teaches maintaining a space between the appliance and particular regions of the teeth (col. 12, ll. 35-44) inherently relieving the force applied to the first tooth.

19. Re claim 17, Chishti teaches a system wherein the second tooth is moved for a first duration and immobilized for a second duration (col. 8, ll. 50-67).

20. Re claim 18, Chishti does not specifically teach the system wherein the duration is on an hourly basis, a daily basis or a weekly basis, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate any duration of time between moving teeth whether it is weekly, monthly, daily, etc. in order to provide a variation of implemented treatment schedules as suitable to each individual patient.

21. Re claim 19, Chishti teaches the system comprising a fabrication machine to generate a plurality of appliances (col. 6, ll. 58-62) wherein the appliances comprise polymeric shells having cavities and wherein the cavities of successive shells have different geometries shaped to receive and resiliently reposition the teeth from one arrangement to a successive arrangement (col. 4, ll. 7-19, col. 8, ll. 50-67).

22. Re claim 20, Chishti teaches the system wherein a first cavity isolates that first tooth at the rest position (col. 8, ll. 59-60) and wherein a second cavity urges the second tooth to a successive arrangement (col. 8, ll. 54-57).

23. Re claim 21, Chishti teaches a system for generating one or more appliances for a patient, the teeth including at least one first tooth and at least one second tooth, the system comprising a processor, a display device coupled to the process (col. 5, ll. 49-51), a data storage device coupled to the processor (col. 5, ll. 65-67), a scanner coupled to the processor for providing data to model the patient's masticator system (col. 5, ll. 43-45), means for modeling an isolating the fist tooth at a rest position while moving the

Art Unit: 3732

second tooth, the isolating of the first tooth by relieving the tooth of any applied force (col. 8, ll. 50-67). Chishti further teaches maintaining a space between the appliance and particular regions of the teeth (col. 12, ll. 35-44) inherently relieving the force applied to the first tooth and a dental appliance fabrication machine coupled to the processor for generating the appliances in accordance with the modeling of isolating the first tooth and moving the second tooth (col. 6, ll. 56-62).

24. Re claims 25-27, Chishti does not specifically teach the method wherein the first or second teeth are in a group of non-contiguous or contiguous teeth, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate any combination of teeth in order to provide a variation of treatment as suitable to each individual patient.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. BASHAW whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Bashaw
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
Art Unit 3732

HMB